NANOCOMPOSITE SURGICAL MATERIALS AND METHOD OF PRODUCING THEM

ABSTRACT OF THE DISCLOSURE

Nanocomposite surgical materials, such as cements, having very fine heterogenous structure are formed by incorporating into a polymeric matrix a well dispersed solid filler having an average mass diameter ranging from about 750 nanometers to about 1 nanometer. The average ligament thickness of the surgical composite cements ranges from about 750 nanometers to about 1 nanometer. Methods and apparatus for avoiding air contact during the preparation and transfer of a cement to an in vivo site are described.